WE CLAIM:

1.   A method to identify a mammal having or at risk for developing glomerulopathy comprising the steps of:

        analyzing a tissue sample from a mammal known to contain cells expressing integrin RNA or protein for integrin subunit expression; and

        comparing integrin subunit expression in the sample with a control tissue sample, wherein altered integrin subunit expression is correlated with glomerulopathy.

2.   The method of Claim 1, wherein the mammal is a human.

3.   The method of Claim 1, wherein the tissue sample is a kidney biopsy.

4.   The method of Claim 1, wherein the tissue sample is blood.

5.   The method of Claim 4, wherein the blood sample contains polymorphonuclear cells or monocytes.

6.   The method of Claim 1, wherein the tissue sample is a skin biopsy.

7.   The method of Claim 1, wherein said analysis comprises *in situ* hybridization.

8.   The method of Claim 7, wherein said *in situ* hybridization comprises PCR enhanced *in situ* hybridization.

9.   The method of Claim 1, wherein said analyzing comprises isolating RNA from the sample.

10.   The method of Claim 1, wherein said analyzing comprises performing PCR, detecting amplified fragments from an integrin subunit and comparing the amount of amplified fragments to the amount of amplified fragments obtained from the control.

11.   The method of claim 1, wherein the integrin subunit is an alpha integrin subunit.

12.   The method of Claim 11, wherein the α integrin subunit is $\alpha 1$, $\alpha 2$, $\alpha 3$, or $\alpha 5$ integrin subunit.

13.   The method of claim 12, wherein the α integrin subunit is $\alpha 1$ or $\alpha 2$ integrin subunit.

14.   The method of claim 1, wherein a decrease in $\alpha 1$ integrin subunit in the tissue sample as compared with control tissue is correlated with nephropathy.

15.   The method of claim 1, wherein an increase in $\alpha 2$ $\alpha 3$, $\alpha 5$, or $\beta 1$ integrin subunit in the tissue sample as compared with control tissue is correlated with nephropathy.

16.   The method of claim 1, wherein an increase in $\alpha 2$ and a decrease in $\alpha 1$ integrin subunit in the tissue sample as compared with control tissue is correlated with nephropathy.

17.   The method of Claim 7, wherein a nucleic acid probe is used to detect integrin, and the probe comprises a 3.9kb fragment of $\alpha 1$ from the 5' end to nucleotide 3900.

18.   The method of Claim 7, wherein a nucleic acid probe is used to detect integrin, and the probe comprises a 1.8kb fragment of $\alpha 2$ from 5' end through the EcoRI site at nucleotide 1800.

19.   The method of Claim 1, wherein said analyzing comprises incubating the sample with an anti-integrin subunit antibody.

20.   The method of Claim 1, wherein the nondiabetic control sample is from a mammal with no history of hypertension.

21.   The method of Claim 1, wherein an increase of about 25% - 100% in the level of α2 integrin subunit expression in the sample tissue as compared with the control is correlated with nephropathy.

5   22.   The method of Claim 1, wherein a decrease of about 25% - 100% in the level of α1 integrin subunit expression in the sample tissue as compared with the control is correlated with nephropathy.

23.   A method to identify a mammal having or at risk for developing glomerulopathy

10   comprising the steps of:

        analyzing a tissue sample from a mammal known to contain cells expressing integrin protein for α1 and α2 integrin subunit expression as compared with a control tissue sample; and

        correlating a decreased level of α1 integrin subunit expression and/or an

15   increased level of α2 integrin subunit expression in the sample tissue as compared to the control with nephropathy.

24.   A method to identify a mammal with diabetes who has or is at risk for developing secondary pathological changes associated with diabetes comprising the

20   steps of:

        analyzing a tissue sample from a mammal known to contain cells expressing integrin protein for integrin subunit expression; and

        correlating alterations in the level of expression of least one integrin subunit as compared with a control tissue sample with the presence of or the risk for developing

25   secondary pathological changes associated with diabetes.

25.   The method of claim 25, wherein said integrin subunit is α1, α2, α3, α5, or β1.

26.   The method of claim 25, wherein said integrin subunit is α1 or α2.

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27.   The method of claim 1, wherein said comparing of a sample with a control comprises comparing a first sample obtained from an individual with a second sample obtained from the same individual at a later sampling time.

5   28.   A kit for the diagnosis of nephropathy comprising:
       two sets of hybridization probes or antibodies capable of detecting each of $\alpha 1$ and $\alpha 2$ integrin subunit expression in a tissue sample.

29.   The kit of claim 28 further comprising primer sets for the amplification of $\alpha 1$
10   and $\alpha 2$ integrin subunits.

30.   The kit of claim 28 further comprising control, standard $\alpha 1$ and $\alpha 2$ integrin subunits.